Technical Memorandum

TO:	Matthew Morris, PE, Washington State Department of Ecology
CC:	Amy Sikora, Washington State Department of Natural Resources
FROM:	Sierra Mott and Eric Weber, LHG, CWRE
DATE:	October 16, 2020
RE:	**Third Quarter 2020 Groundwater Monitoring Results** **Webster Nursery Site, Site ID 3380** **Tumwater, Washington** **Project No. 0774006.040.046**

Introduction

This technical memorandum summarizes the results of quarterly groundwater monitoring completed by Landau Associates, Inc. (LAI) at the Washington State Department of Natural Resources Webster Nursery site, a former pesticide-storage warehouse in Tumwater, Washington (site; Figure 1). The site is associated with past releases of organochlorine pesticides to soil and groundwater. Constituents of concern include the organochlorine pesticides heptachlor epoxide (HE; breakdown product of heptachlor) and technical chlordane.

Remedial action excavation and disposal of HE-contaminated soil were completed in August 2018. A summary of the remedial action is provided in a draft Cleanup Action Completion Report (LAI 2018).

Groundwater Monitoring Summary

Third quarter 2020 (3Q20) groundwater monitoring was completed on August 26, 2020. Groundwater monitoring was completed in accordance with the framework established by Washington State Department of Ecology (Ecology) Agreed Order No. DE 00TCP-SR295, the Remedial Action Work Plan (LAI 2017), and the Compliance Monitoring Plan (LAI 2019). Groundwater samples were collected from two wells (SW-10R and SW-11R). Analytical Resources, Inc. of Tukwila, Washington analyzed the groundwater samples for organochlorine pesticides using U.S. Environmental Protection Agency Method 8081A low-level.

Groundwater samples were collected with a peristaltic pump and dedicated tubing using low-flow groundwater sampling procedures. Low-flow groundwater monitoring consists of measuring the depth-to-water with an electronic groundwater level indicator, monitoring field parameters with a YSI 554 multi-parameter probe, and measuring turbidity with a handheld meter. One duplicate sample (SW-99 at SW-11R) was collected for quality control purposes.

Groundwater Monitoring Results

Groundwater monitoring results are summarized below:

- HE was detected in SW-10R at a concentration of 0.0060 micrograms per liter (µg/L), above the cleanup level (CUL; 0.00481 µg/L).
- HE was detected in SW-11R at a concentration of 0.0071 µg/L, above the CUL. HE was detected in the SW-11R duplicate sample at a concentration of 0.0063 µg/L, also above the CUL.
- No analytes other than HE were detected in either well during 3Q20 groundwater monitoring.

August 2020 organochlorine pesticide data are provided in Table 1, and the laboratory data package is provided in Attachment 1. Time series data of recent HE concentrations in groundwater at SW-10R and SW-11R (dating back to January 2010) are presented on Figure 3.

Groundwater elevations at SW-10R and SW-11R were 181.62 and 181.30 feet mean sea level, respectively. This represents an approximate 4 foot decline from the previous monitoring event, completed in May 2020. Depth-to-water and groundwater elevation data are provided in Table 2 and SW-10R groundwater elevation data collected since the remedial action is shown on Figure 3.

Environmental Information Management Submittal

An Environmental Information Management submittal is required. The submittal will be completed in fall 2020, after this technical memorandum has been submitted to Ecology.

LANDAU ASSOCIATES, INC.

Sierra Mott
Senior Project Scientist

Eric Weber, LHG, CWRE
Principal

SMM/EFW/kjg
[Y:\774\006\R\QUARTERLY GW MONITORING REPORTS\2020_08_3Q20\LAI_WEBSTER NURSERY 3Q20 GW MONITORING_TM_09-28-20.DOCX]

References

LAI. 2019. Compliance Monitoring Plan, Washington State Department of Natural Resources Webster Nursery, Tumwater, Washington. Landau Associates, Inc. July 24.

LAI. 2018. Draft Cleanup Action Completion Report, Washington State Department of Natural Resources Webster Nursery, Tumwater, Washington. Landau Associates, Inc. October 12.

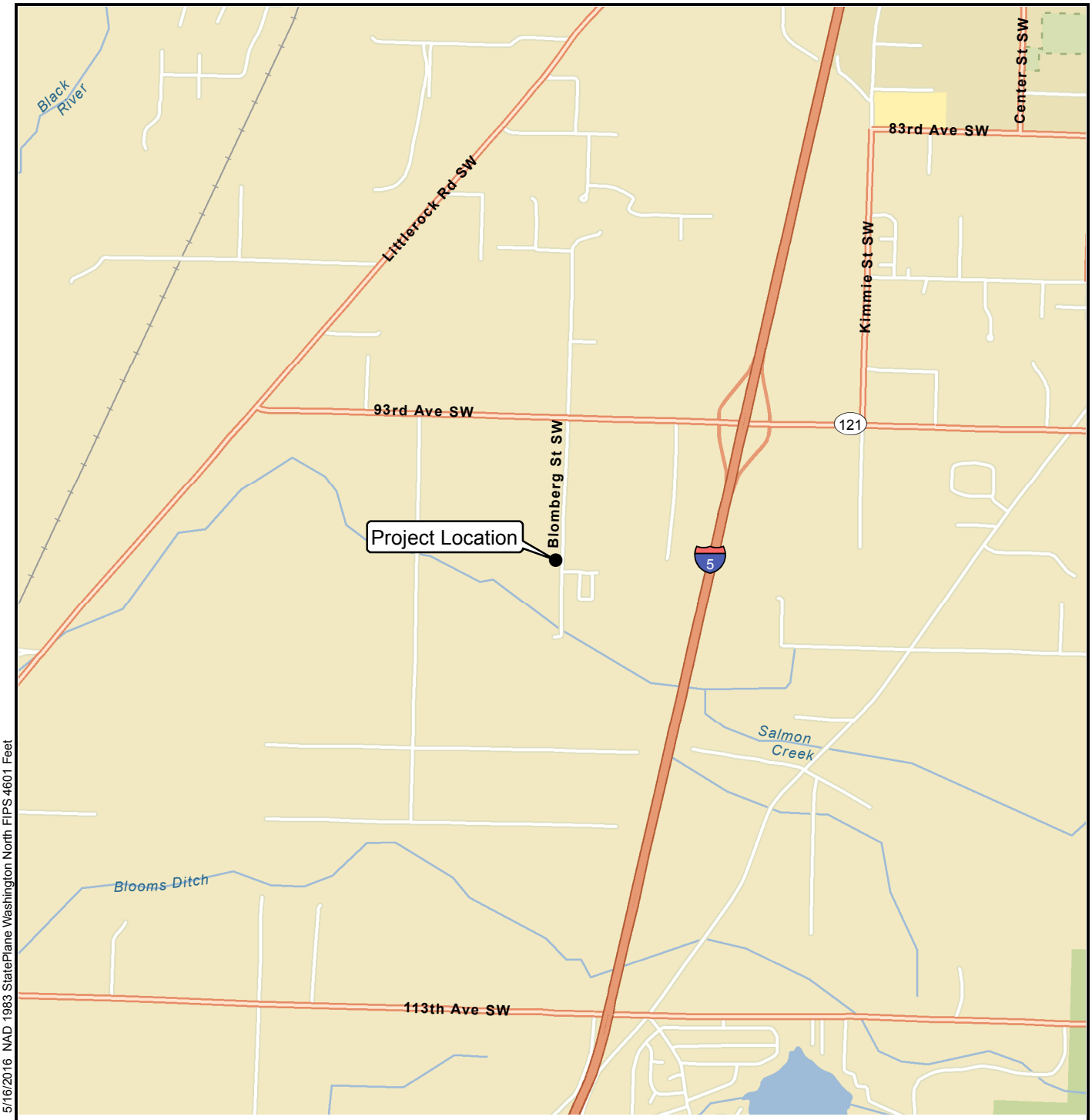
LAI. 2017. Remedial Action Work Plan, Webster Nursery, 9805 Blomberg Street SW, Tumwater, Washington. Landau Associates, Inc. October 31.

Attachments

Figure 1. Vicinity Map
Figure 2. Monitoring Well Network
Figure 3. Heptachlor Epoxide and Groundwater Elevation Time Series, SW-10(R) and SW-11(R)

Table 1. Groundwater Analytical Results
Table 2. Groundwater Level Measurements

Attachment 1. August 2020 Laboratory Data Package



N

0 0.5 1

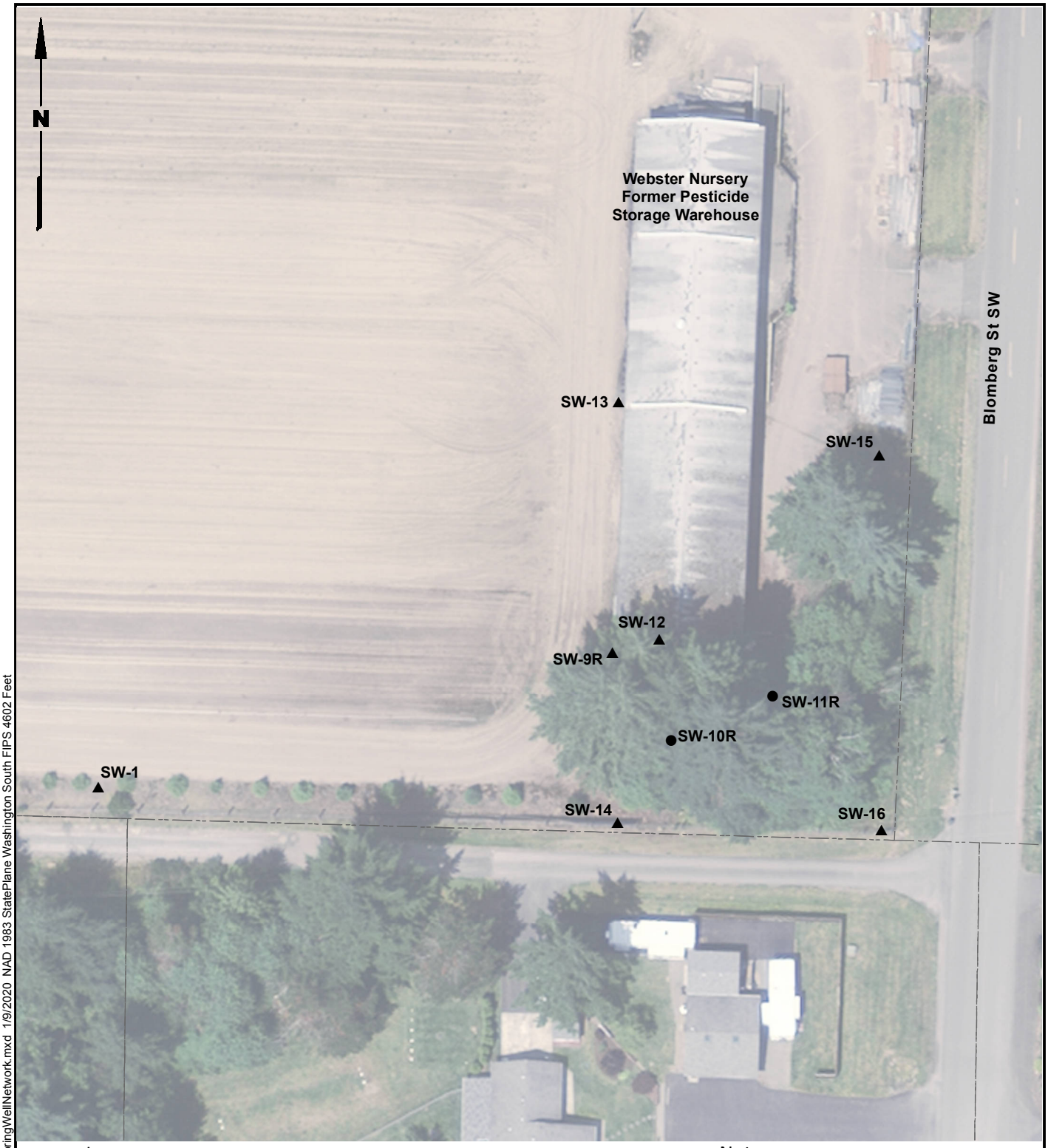
Miles

Data Source: Esri 2012

G:\Projects\774\006\020\026\FSIF01 VicinityMap.mxd 5/16/2016 NAD 1983 StatePlane Washington North FIPS 4601 Feet

LANDAU ASSOCIATES

Webster Nursery Site Tumwater, Washington	**Vicinity Map**	Figure 1



G:\Projects\774\006\040\045\F02MonitoringWellNetwork.mxd 1/9/2020 NAD 1983 StatePlane Washington South FIPS 4602 Feet

Legend

- Pesticide Monitoring Well
- Other Monitoring Well
- Tax Parcels

0 50 100

Scale in Feet

Notes

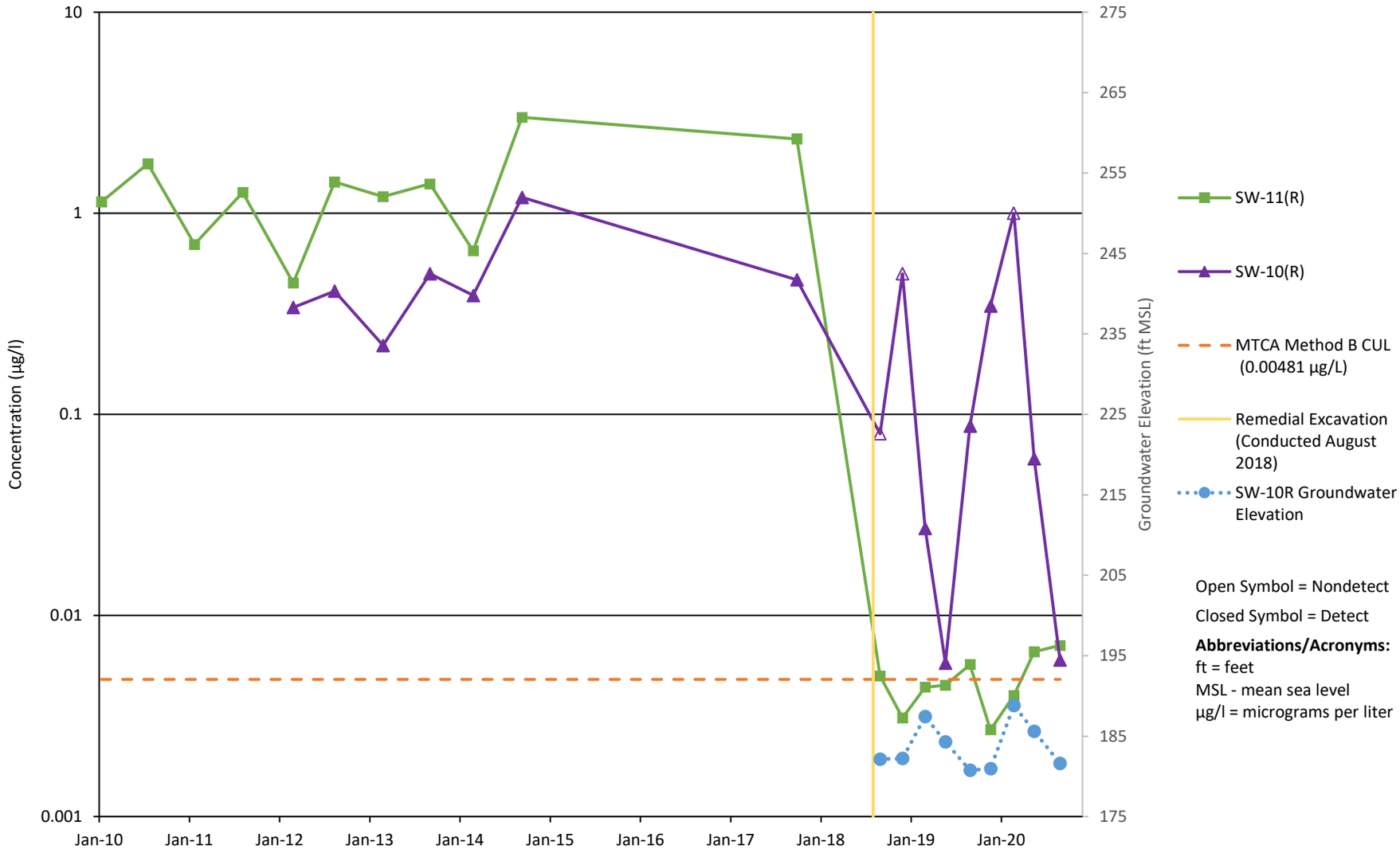
1. SW-9R, SW-10R, and SW-11R are new (replacement) wells.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Sources: Thurston County GIS; WA DNR Survey, 2018.

LANDAU ASSOCIATES

Webster Nursery Site Tumwater, Washington	**Monitoring Well Network**	Figure 2

\\tacoma3\PROJECT\774\006\R\Quarterly GW Monitoring Reports\2020_08_3Q20\Figures\F03_HE and GWE Timeseries



LANDAU ASSOCIATES

Webster Nursery Site
Tumwater, Washington

Heptachlor Epoxide and Groundwater Elevation Time Series SW-10(R) and SW-11(R)

Figure
3

Table 1
Groundwater Analytical Results
Webster Nursery
Tumwater, Washington

Analyte	MTCA Method B Cleanup Levels Cancerous	Sample Location, Sample ID, Laboratory SDG, Sample Date, and Sample Type SW-10R SW-10R-20200826 20H0286 8/26/2020 N	 SW-11R SW-11R-20200826 20H0286 8/26/2020 N	 SW-11R SW-99-20200826 20H0286 8/26/2020 FD
Pesticides (µg/L; SW-846 8081B)				
4,4'-DDD	--	0.0013 U	0.0013 U	0.0013 U
4,4'-DDE	--	0.0013 U	0.0013 U	0.0013 U
4,4'-DDT	--	0.0013 U	0.0013 U	0.0013 U
Aldrin	--	0.0006 U	0.0006 U	0.0006 U
alpha-BHC	--	0.0006 U	0.0006 U	0.0006 U
beta-BHC	--	0.0006 U	0.0006 U	0.0006 U
Chlordane	0.25	0.0050 U	0.0050 U	0.0050 U
cis-Chlordane	--	0.0006 U	0.0006 U	0.0006 U
delta-BHC	--	0.0006 U	0.0006 U	0.0006 U
Dieldrin	--	0.0013 U	0.0013 U	0.0013 U
Endosulfan I	--	0.0006 U	0.0006 U	0.0006 U
Endosulfan II	--	0.0013 U	0.0013 U	0.0013 U
Endosulfan Sulfate	--	0.0013 U	0.0013 U	0.0013 U
Endrin	--	0.0013 U	0.0013 U	0.0013 U
Endrin Aldehyde	--	0.0013 U	0.0013 U	0.0013 U
Endrin Ketone	--	0.0013 U	0.0013 U	0.0013 U
gamma-BHC	--	0.0006 U	0.0006 U	0.0006 U
Heptachlor	0.0194	0.0006 U	0.0006 U	0.0006 U
Heptachlor Epoxide	0.00481	**0.0060**	**0.0071**	**0.0063**
Methoxychlor	--	0.0063 U	0.0063 U	0.0063 U
Toxaphene	--	0.0625 U	0.0625 U	0.0625 U
trans-Chlordane	--	0.0006 U	0.0006 U	0.0006 U

Notes:

-- = cleanup level not applicable

Bold text = Indicates detected analyte.

Green Box = Detected concentration is greater than the cleanup level

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Abbreviations and Acronyms:

FD = field duplicate
ID = identification
µg/L = micrograms per liter
MTCA = Model Toxics Control Act
N = primary sample
SDG = sample delivery group

Table 2
Groundwater Level Measurements
Webster Nursery
Tumwater, Washington

Well ID	Top of Casing Elevation (ft)	Depth to Water (ft bgs)	Groundwater Elevation (ft)
SW-10R	193.41	11.79	181.62
SW-11R	192.50	11.20	181.30

Notes:
Groundwater elevation data was collected August 26, 2020.

Abbreviations:
bgs = below ground surface
ft = feet
ID = identification

Attachment 1

August 2020 Laboratory Data Package

Analytical Resources, Incorporated
Analytical Chemists and Consultants

09 September 2020

Sierra Mott
Landau Associates, Inc. - Tacoma
2107 South C Street
Tacoma, WA 98402

RE: Webster Nursery

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
20H0286	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

2040286

LANDAU ASSOCIATES

Chain-of-Custody Record

☐ Seattle/Edmonds (425) 778-0907 ☐ Spokane (509) 327-9737
☒ Tacoma (253) 926-2493 ☐ Portland (503) 542-1080
☐ _____

Date 8/26/20
Page 1 of 1

Turnaround Time:
(Standard) 2
Accelerated _____

Project Name Webster Nursery Project No. 774006.040.045
Project Location/Event Olympia, WA / 3Q Sampling
Sampler's Name J. Cavanaugh
Project Contact S. Mott
Send Results To S. Mott, E. Weber, D. Jorgensen

Special Handling Requirements: _____
Shipment Method: _____
Stored on ice: (Yes) / No
15.1 °C

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters: Pesticides - Organochlorine EPA 8081B
SW-10R-20200826	8/26/20	1155	AQ	2	X
SW-11R-20200826	8/26/20	1330	AQ	2	X
SW-99-20200826	8/26/20	1333	AQ	2	X

Observations/Comments

___ Allow water samples to settle, collect aliquot from clear portion ☐

___ NWTPH-Dx - Acid wash cleanup ☐
- Silica gel cleanup ☐

___ Dissolved metal samples were field filtered

Other _____

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Jessikah Cavanaugh	Printed Name Kenny Dang	Printed Name	Printed Name
Company Landau Associates	Company ARI	Company	Company
Date 8/26/20 Time 1511	Date 8/26/20 Time 1511	Date Time	Date Time

WHITE COPY - Laboratory YELLOW COPY - Project File PINK COPY - Client Representative

10/2018

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analytical Report

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-10R-20200826	20H0286-01	Water	26-Aug-2020 11:55	26-Aug-2020 15:11
SW-11R-20200826	20H0286-02	Water	26-Aug-2020 13:30	26-Aug-2020 15:11
SW-99-20200826	20H0286-03	Water	26-Aug-2020 13:33	26-Aug-2020 15:11

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Work Order Case Narrative

Pesticides - EPA Method SW8081B

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Landau Tacoma — Project Name: Webster Nursery

COC No(s): NA — Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No: 20H0286 — Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1546 — 14.6

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: DOO S-206

Cooler Accepted by: KD — Date: 8/26/20 — Time: 1511

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	YES	NO
How were bottles sealed in plastic bags?	Individually	Grouped	Not
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KD — Date: 8/27/20 — Time: 0833 — Labels checked by: KD

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Temperature Compliance Form

ARI Work Order: 20H0286

Cooler#: 1 **Temperature(°C):** 14.6

Sample ID	Bottle Count	Bottle Type
Samples received above 6°C		

Cooler#: _____ **Temperature(°C):** _____

Sample ID	Bottle Count	Bottle Type

Cooler#: _____ **Temperature(°C):** _____

Sample ID	Bottle Count	Bottle Type

Cooler#: _____ **Temperature(°C):** _____

Sample ID	Bottle Count	Bottle Type

Completed by: KO Date: 8/26/20 Time: 1511

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

SW-10R-20200826

20H0286-01 (Water)

Chlorinated Pesticides

Method: EPA 8081B — Sampled: 08/26/2020 11:55

Instrument: ECD6 Analyst: YZ — Analyzed: 09/04/2020 17:08

Sample Preparation:	Preparation Method: EPA 3510C SepF		Extract ID: 20H0286-01 A 01
	Preparation Batch: BIH0658	Sample Size: 1000 mL	
	Prepared: 09/01/2020	Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 20H0286-01 A 01
	Cleanup Batch: CII0028	Initial Volume: 0.5 mL	
	Cleaned: 03-Sep-2020	Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:20H0286-01 A 01
	Cleanup Batch: CII0027	Initial Volume: 0.5 mL	
	Cleaned: 03-Sep-2020	Final Volume: 0.5 mL	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
alpha-BHC	319-84-6	1	0.0006	ND	ug/L	U
beta-BHC	319-85-7	1	0.0006	ND	ug/L	U
gamma-BHC (Lindane)	58-89-9	1	0.0006	ND	ug/L	U
delta-BHC	319-86-8	1	0.0006	ND	ug/L	U
Heptachlor	76-44-8	1	0.0006	ND	ug/L	U
Aldrin	309-00-2	1	0.0006	ND	ug/L	U
Heptachlor Epoxide	1024-57-3	1	0.0006	0.0060	ug/L	
trans-Chlordane (beta-Chlordane)	5103-74-2	1	0.0006	ND	ug/L	U
cis-Chlordane (alpha-chlordane)	5103-71-9	1	0.0006	ND	ug/L	U
Endosulfan I	959-98-8	1	0.0006	ND	ug/L	U
4,4'-DDE	72-55-9	1	0.0013	ND	ug/L	U
Dieldrin	60-57-1	1	0.0013	ND	ug/L	U
Endrin	72-20-8	1	0.0013	ND	ug/L	U
Endosulfan II	33213-65-9	1	0.0013	ND	ug/L	U
4,4'-DDD	72-54-8	1	0.0013	ND	ug/L	U
Endrin Aldehyde	7421-93-4	1	0.0013	ND	ug/L	U
4,4'-DDT	50-29-3	1	0.0013	ND	ug/L	U
Endosulfan Sulfate	1031-07-8	1	0.0013	ND	ug/L	U
Endrin Ketone	53494-70-5	1	0.0013	ND	ug/L	U
Methoxychlor	72-43-5	1	0.0063	ND	ug/L	U
Toxaphene	8001-35-2	1	0.0625	ND	ug/L	U
Chlordane (NOS)	57-74-9	1	0.0050	ND	ug/L	U
Surrogate: Decachlorobiphenyl			*30-160 %*	*63.3*	*%*	
Surrogate: Decachlorobiphenyl [2C]			*30-160 %*	*64.6*	*%*	
Surrogate: Tetrachlorometaxylene			*30-160 %*	*55.0*	*%*	P1
Surrogate: Tetrachlorometaxylene [2C]			*30-160 %*	*28.7*	*%*	*, P1

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

SW-11R-20200826

20H0286-02 (Water)

Chlorinated Pesticides

Method: EPA 8081B — Sampled: 08/26/2020 13:30

Instrument: ECD6 Analyst: YZ — Analyzed: 09/04/2020 17:26

Sample Preparation:	Preparation Method: EPA 3510C SepF		Extract ID: 20H0286-02 A 01
	Preparation Batch: BIH0658	Sample Size: 1000 mL	
	Prepared: 09/01/2020	Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 20H0286-02 A 01
	Cleanup Batch: CII0028	Initial Volume: 0.5 mL	
	Cleaned: 03-Sep-2020	Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:20H0286-02 A 01
	Cleanup Batch: CII0027	Initial Volume: 0.5 mL	
	Cleaned: 03-Sep-2020	Final Volume: 0.5 mL	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
alpha-BHC	319-84-6	1	0.0006	ND	ug/L	U
beta-BHC	319-85-7	1	0.0006	ND	ug/L	U
gamma-BHC (Lindane)	58-89-9	1	0.0006	ND	ug/L	U
delta-BHC	319-86-8	1	0.0006	ND	ug/L	U
Heptachlor	76-44-8	1	0.0006	ND	ug/L	U
Aldrin	309-00-2	1	0.0006	ND	ug/L	U
Heptachlor Epoxide	1024-57-3	1	0.0006	0.0071	ug/L	
trans-Chlordane (beta-Chlordane)	5103-74-2	1	0.0006	ND	ug/L	U
cis-Chlordane (alpha-chlordane)	5103-71-9	1	0.0006	ND	ug/L	U
Endosulfan I	959-98-8	1	0.0006	ND	ug/L	U
4,4'-DDE	72-55-9	1	0.0013	ND	ug/L	U
Dieldrin	60-57-1	1	0.0013	ND	ug/L	U
Endrin	72-20-8	1	0.0013	ND	ug/L	U
Endosulfan II	33213-65-9	1	0.0013	ND	ug/L	U
4,4'-DDD	72-54-8	1	0.0013	ND	ug/L	U
Endrin Aldehyde	7421-93-4	1	0.0013	ND	ug/L	U
4,4'-DDT	50-29-3	1	0.0013	ND	ug/L	U
Endosulfan Sulfate	1031-07-8	1	0.0013	ND	ug/L	U
Endrin Ketone	53494-70-5	1	0.0013	ND	ug/L	U
Methoxychlor	72-43-5	1	0.0063	ND	ug/L	U
Toxaphene	8001-35-2	1	0.0625	ND	ug/L	U
Chlordane (NOS)	57-74-9	1	0.0050	ND	ug/L	U
Surrogate: Decachlorobiphenyl			*30-160 %*	*69.3*	*%*	
Surrogate: Decachlorobiphenyl [2C]			*30-160 %*	*73.6*	*%*	
Surrogate: Tetrachlorometaxylene			*30-160 %*	*45.6*	*%*	
Surrogate: Tetrachlorometaxylene [2C]			*30-160 %*	*35.1*	*%*	

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

SW-99-20200826

20H0286-03 (Water)

Chlorinated Pesticides

Method: EPA 8081B — Sampled: 08/26/2020 13:33

Instrument: ECD6 Analyst: YZ — Analyzed: 09/04/2020 17:44

Sample Preparation:	Preparation Method: EPA 3510C SepF		Extract ID: 20H0286-03 A 01
	Preparation Batch: BIH0658	Sample Size: 1000 mL	
	Prepared: 09/01/2020	Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Silica Gel		Extract ID: 20H0286-03 A 01
	Cleanup Batch: CII0028	Initial Volume: 0.5 mL	
	Cleaned: 03-Sep-2020	Final Volume: 0.5 mL	
Sample Cleanup:	Cleanup Method: Sulfur		Extract ID:20H0286-03 A 01
	Cleanup Batch: CII0027	Initial Volume: 0.5 mL	
	Cleaned: 03-Sep-2020	Final Volume: 0.5 mL	

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
alpha-BHC	319-84-6	1	0.0006	ND	ug/L	U
beta-BHC	319-85-7	1	0.0006	ND	ug/L	U
gamma-BHC (Lindane)	58-89-9	1	0.0006	ND	ug/L	U
delta-BHC	319-86-8	1	0.0006	ND	ug/L	U
Heptachlor	76-44-8	1	0.0006	ND	ug/L	U
Aldrin	309-00-2	1	0.0006	ND	ug/L	U
Heptachlor Epoxide	1024-57-3	1	0.0006	0.0063	ug/L	
trans-Chlordane (beta-Chlordane)	5103-74-2	1	0.0006	ND	ug/L	U
cis-Chlordane (alpha-chlordane)	5103-71-9	1	0.0006	ND	ug/L	U
Endosulfan I	959-98-8	1	0.0006	ND	ug/L	U
4,4'-DDE	72-55-9	1	0.0013	ND	ug/L	U
Dieldrin	60-57-1	1	0.0013	ND	ug/L	U
Endrin	72-20-8	1	0.0013	ND	ug/L	U
Endosulfan II	33213-65-9	1	0.0013	ND	ug/L	U
4,4'-DDD	72-54-8	1	0.0013	ND	ug/L	U
Endrin Aldehyde	7421-93-4	1	0.0013	ND	ug/L	U
4,4'-DDT	50-29-3	1	0.0013	ND	ug/L	U
Endosulfan Sulfate	1031-07-8	1	0.0013	ND	ug/L	U
Endrin Ketone	53494-70-5	1	0.0013	ND	ug/L	U
Methoxychlor	72-43-5	1	0.0063	ND	ug/L	U
Toxaphene	8001-35-2	1	0.0625	ND	ug/L	U
Chlordane (NOS)	57-74-9	1	0.0050	ND	ug/L	U
Surrogate: Decachlorobiphenyl			*30-160 %*	*65.1*	*%*	
Surrogate: Decachlorobiphenyl [2C]			*30-160 %*	*69.2*	*%*	
Surrogate: Tetrachlorometaxylene			*30-160 %*	*62.2*	*%*	
Surrogate: Tetrachlorometaxylene [2C]			*30-160 %*	*43.7*	*%*	

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Chlorinated Pesticides - Quality Control

Batch BIH0658 - EPA 3510C SepF

Instrument: ECD6 Analyst: YZ

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BIH0658-BLK1)				Prepared: 01-Sep-2020 Analyzed: 04-Sep-2020 16:14						
alpha-BHC	ND	0.0006	ug/L							U
beta-BHC	ND	0.0006	ug/L							U
gamma-BHC (Lindane)	ND	0.0006	ug/L							U
delta-BHC	ND	0.0006	ug/L							U
Heptachlor	ND	0.0006	ug/L							U
Aldrin	ND	0.0006	ug/L							U
Heptachlor Epoxide	ND	0.0006	ug/L							U
trans-Chlordane (beta-Chlordane)	ND	0.0006	ug/L							U
cis-Chlordane (alpha-chlordane)	ND	0.0006	ug/L							U
Endosulfan I	ND	0.0006	ug/L							U
4,4'-DDE	ND	0.0013	ug/L							U
Dieldrin	ND	0.0013	ug/L							U
Endrin	ND	0.0013	ug/L							U
Endosulfan II	ND	0.0013	ug/L							U
4,4'-DDD	ND	0.0013	ug/L							U
Endrin Aldehyde	ND	0.0013	ug/L							U
4,4'-DDT	ND	0.0013	ug/L							U
Endosulfan Sulfate	ND	0.0013	ug/L							U
Endrin Ketone	ND	0.0013	ug/L							U
Methoxychlor	ND	0.0063	ug/L							U
Toxaphene	ND	0.0625	ug/L							U
Chlordane (NOS)	ND	0.0050	ug/L							U
Surrogate: Decachlorobiphenyl	0.0141		ug/L	*0.0200*		*70.4*	*30-160*			
Surrogate: Decachlorobiphenyl [2C]	0.0156		ug/L	*0.0200*		*77.9*	*30-160*			
Surrogate: Tetrachlorometaxylene	0.00875		ug/L	*0.0200*		*43.7*	*30-160*			
Surrogate: Tetrachlorometaxylene [2C]	0.00968		ug/L	*0.0200*		*48.4*	*30-160*			
LCS (BIH0658-BS1)				Prepared: 01-Sep-2020 Analyzed: 04-Sep-2020 16:32						
alpha-BHC	0.0060	0.0006	ug/L	0.0100		59.7	30-160			
beta-BHC	0.0055	0.0006	ug/L	0.0100		55.4	30-160			
gamma-BHC (Lindane)	0.0056	0.0006	ug/L	0.0100		55.7	30-160			
delta-BHC	0.0060	0.0006	ug/L	0.0100		60.2	30-160			
Heptachlor	0.0050	0.0006	ug/L	0.0100		50.4	30-160			
Aldrin	0.0059	0.0006	ug/L	0.0100		59.5	30-160			
Heptachlor Epoxide	0.0054	0.0006	ug/L	0.0100		54.1	30-160			

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Chlorinated Pesticides - Quality Control

Batch BIH0658 - EPA 3510C SepF

Instrument: ECD6 Analyst: YZ

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BIH0658-BS1)				Prepared: 01-Sep-2020 Analyzed: 04-Sep-2020 16:32						
trans-Chlordane (beta-Chlordane)	0.0052	0.0006	ug/L	0.0100		51.6	30-160			
cis-Chlordane (alpha-chlordane)	0.0064	0.0006	ug/L	0.0100		64.1	30-160			
Endosulfan I	0.0053	0.0006	ug/L	0.0100		52.9	30-160			
4,4'-DDE	0.0113	0.0013	ug/L	0.0200		56.6	30-160			
Dieldrin	0.0115	0.0013	ug/L	0.0200		57.5	30-160			
Endrin	0.0128	0.0013	ug/L	0.0200		64.0	30-160			
Endosulfan II	0.0146	0.0013	ug/L	0.0200		73.0	30-160			
4,4'-DDD	0.0128	0.0013	ug/L	0.0200		64.1	30-160			
Endrin Aldehyde	0.0102	0.0013	ug/L	0.0200		51.1	30-160			
4,4'-DDT	0.0124	0.0013	ug/L	0.0200		61.9	30-160			
Endosulfan Sulfate	0.0134	0.0013	ug/L	0.0200		66.9	30-160			
Endrin Ketone	0.0125	0.0013	ug/L	0.0200		62.7	30-160			
Methoxychlor	0.0632	0.0063	ug/L	0.100		63.2	30-160			
Surrogate: Decachlorobiphenyl	0.0133		ug/L	*0.0200*		*66.4*	*30-160*			
Surrogate: Decachlorobiphenyl [2C]	0.0180		ug/L	*0.0200*		*90.2*	*30-160*			
Surrogate: Tetrachlorometaxylene	0.0102		ug/L	*0.0200*		*51.2*	*30-160*			
Surrogate: Tetrachlorometaxylene [2C]	0.0100		ug/L	*0.0200*		*50.2*	*30-160*			
LCS Dup (BIH0658-BSD1)				Prepared: 01-Sep-2020 Analyzed: 04-Sep-2020 16:50						
alpha-BHC	0.0072	0.0006	ug/L	0.0100		72.2	30-160	18.90	30	
beta-BHC	0.0068	0.0006	ug/L	0.0100		67.7	30-160	21.60	30	
gamma-BHC (Lindane)	0.0070	0.0006	ug/L	0.0100		70.4	30-160	23.20	30	
delta-BHC	0.0073	0.0006	ug/L	0.0100		72.9	30-160	19.00	30	
Heptachlor	0.0067	0.0006	ug/L	0.0100		66.9	30-160	28.10	30	
Aldrin	0.0075	0.0006	ug/L	0.0100		74.7	30-160	22.70	30	
Heptachlor Epoxide	0.0067	0.0006	ug/L	0.0100		66.8	30-160	20.90	30	
trans-Chlordane (beta-Chlordane)	0.0067	0.0006	ug/L	0.0100		67.3	30-160	26.40	30	
cis-Chlordane (alpha-chlordane)	0.0080	0.0006	ug/L	0.0100		80.3	30-160	22.50	30	
Endosulfan I	0.0068	0.0006	ug/L	0.0100		68.4	30-160	25.50	30	
4,4'-DDE	0.0145	0.0013	ug/L	0.0200		72.5	30-160	24.70	30	
Dieldrin	0.0144	0.0013	ug/L	0.0200		72.1	30-160	25.40	30	
Endrin	0.0157	0.0013	ug/L	0.0200		78.6	30-160	21.30	30	
Endosulfan II	0.0167	0.0013	ug/L	0.0200		83.7	30-160	13.70	30	
4,4'-DDD	0.0159	0.0013	ug/L	0.0200		79.3	30-160	21.80	30	
Endrin Aldehyde	0.0120	0.0013	ug/L	0.0200		60.1	30-160	16.30	30	

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Chlorinated Pesticides - Quality Control

Batch BIH0658 - EPA 3510C SepF

Instrument: ECD6 Analyst: YZ

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BIH0658-BSD1)				Prepared: 01-Sep-2020 Analyzed: 04-Sep-2020 16:50						
4,4'-DDT	0.0156	0.0013	ug/L	0.0200		78.0	30-160	23.10	30	
Endosulfan Sulfate	0.0163	0.0013	ug/L	0.0200		81.5	30-160	19.70	30	
Endrin Ketone	0.0163	0.0013	ug/L	0.0200		81.4	30-160	26.00	30	
Methoxychlor	0.0785	0.0063	ug/L	0.100		78.5	30-160	21.70	30	
Surrogate: Decachlorobiphenyl	0.0149		ug/L	*0.0200*		*74.3*	*30-160*			
Surrogate: Decachlorobiphenyl [2C]	0.0155		ug/L	*0.0200*		*77.4*	*30-160*			
Surrogate: Tetrachlorometaxylene	0.0103		ug/L	*0.0200*		*51.4*	*30-160*			
Surrogate: Tetrachlorometaxylene [2C]	0.0103		ug/L	*0.0200*		*51.4*	*30-160*			

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Certified Analyses included in this Report

Analyte	Certifications
EPA 8081B in Water	
alpha-BHC	DoD-ELAP,WADOE,NELAP,CALAP
alpha-BHC	DoD-ELAP,NELAP,CALAP
alpha-BHC	DoD-ELAP,WADOE,CALAP
alpha-BHC	DoD-ELAP,WADOE,NELAP
alpha-BHC [2C]	DoD-ELAP,WADOE,NELAP
alpha-BHC [2C]	DoD-ELAP,NELAP,CALAP
alpha-BHC [2C]	DoD-ELAP,WADOE,NELAP,CALAP
alpha-BHC [2C]	DoD-ELAP,WADOE,CALAP
beta-BHC	DoD-ELAP,WADOE,NELAP
beta-BHC	DoD-ELAP,WADOE,CALAP
beta-BHC	DoD-ELAP,NELAP,CALAP
beta-BHC	DoD-ELAP,WADOE,NELAP,CALAP
beta-BHC [2C]	DoD-ELAP,WADOE,NELAP,CALAP
beta-BHC [2C]	DoD-ELAP,WADOE,NELAP
beta-BHC [2C]	DoD-ELAP,WADOE,CALAP
beta-BHC [2C]	DoD-ELAP,NELAP,CALAP
gamma-BHC (Lindane)	DoD-ELAP,WADOE,NELAP
gamma-BHC (Lindane)	DoD-ELAP,WADOE,CALAP
gamma-BHC (Lindane)	DoD-ELAP,NELAP,CALAP
gamma-BHC (Lindane)	DoD-ELAP,WADOE,NELAP,CALAP
gamma-BHC (Lindane) [2C]	DoD-ELAP,WADOE,NELAP,CALAP
gamma-BHC (Lindane) [2C]	DoD-ELAP,WADOE,NELAP
gamma-BHC (Lindane) [2C]	DoD-ELAP,NELAP,CALAP
gamma-BHC (Lindane) [2C]	DoD-ELAP,WADOE,CALAP
delta-BHC	DoD-ELAP,WADOE,NELAP
delta-BHC	DoD-ELAP,WADOE,NELAP,CALAP
delta-BHC	DoD-ELAP,NELAP,CALAP
delta-BHC	DoD-ELAP,WADOE,CALAP
delta-BHC [2C]	DoD-ELAP,WADOE,NELAP,CALAP
delta-BHC [2C]	DoD-ELAP,WADOE,CALAP
delta-BHC [2C]	DoD-ELAP,WADOE,NELAP
delta-BHC [2C]	DoD-ELAP,NELAP,CALAP
Heptachlor	DoD-ELAP,WADOE,CALAP
Heptachlor	DoD-ELAP,NELAP,CALAP
Heptachlor	DoD-ELAP,WADOE,NELAP

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Heptachlor	DoD-ELAP,WADOE,NELAP,CALAP
Heptachlor [2C]	DoD-ELAP,WADOE,NELAP
Heptachlor [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Heptachlor [2C]	DoD-ELAP,NELAP,CALAP
Heptachlor [2C]	DoD-ELAP,WADOE,CALAP
Aldrin	DoD-ELAP,WADOE,NELAP,CALAP
Aldrin	DoD-ELAP,WADOE,NELAP
Aldrin	DoD-ELAP,WADOE,CALAP
Aldrin	DoD-ELAP,NELAP,CALAP
Aldrin [2C]	DoD-ELAP,WADOE,CALAP
Aldrin [2C]	DoD-ELAP,WADOE,NELAP
Aldrin [2C]	DoD-ELAP,NELAP,CALAP
Aldrin [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Heptachlor Epoxide	DoD-ELAP,WADOE,NELAP,CALAP
Heptachlor Epoxide	DoD-ELAP,WADOE,NELAP
Heptachlor Epoxide	DoD-ELAP,NELAP,CALAP
Heptachlor Epoxide	DoD-ELAP,WADOE,CALAP
Heptachlor Epoxide [2C]	DoD-ELAP,WADOE,NELAP
Heptachlor Epoxide [2C]	DoD-ELAP,WADOE,CALAP
Heptachlor Epoxide [2C]	DoD-ELAP,NELAP,CALAP
Heptachlor Epoxide [2C]	DoD-ELAP,WADOE,NELAP,CALAP
trans-Chlordane (beta-Chlordane)	DoD-ELAP,WADOE,NELAP
trans-Chlordane (beta-Chlordane)	DoD-ELAP,WADOE,NELAP,CALAP
trans-Chlordane (beta-Chlordane)	DoD-ELAP,WADOE,CALAP
trans-Chlordane (beta-Chlordane)	DoD-ELAP,NELAP,CALAP
trans-Chlordane (beta-Chlordane) [2C]	DoD-ELAP,WADOE,NELAP,CALAP
trans-Chlordane (beta-Chlordane) [2C]	DoD-ELAP,WADOE,NELAP
trans-Chlordane (beta-Chlordane) [2C]	DoD-ELAP,WADOE,CALAP
trans-Chlordane (beta-Chlordane) [2C]	DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane)	DoD-ELAP,WADOE,NELAP
cis-Chlordane (alpha-chlordane)	DoD-ELAP,WADOE,CALAP
cis-Chlordane (alpha-chlordane)	DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane)	DoD-ELAP,WADOE,NELAP,CALAP
cis-Chlordane (alpha-chlordane) [2C]	DoD-ELAP,NELAP,CALAP
cis-Chlordane (alpha-chlordane) [2C]	DoD-ELAP,WADOE,CALAP
cis-Chlordane (alpha-chlordane) [2C]	DoD-ELAP,WADOE,NELAP,CALAP
cis-Chlordane (alpha-chlordane) [2C]	DoD-ELAP,WADOE,NELAP
Endosulfan I	DoD-ELAP,WADOE,CALAP
Endosulfan I	DoD-ELAP,NELAP,CALAP

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Endosulfan I	DoD-ELAP,WADOE,NELAP,CALAP
Endosulfan I	DoD-ELAP,WADOE,NELAP
Endosulfan I [2C]	DoD-ELAP,WADOE,NELAP
Endosulfan I [2C]	DoD-ELAP,WADOE,CALAP
Endosulfan I [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan I [2C]	DoD-ELAP,WADOE,NELAP,CALAP
4,4'-DDE	DoD-ELAP,WADOE,NELAP,CALAP
4,4'-DDE	DoD-ELAP,NELAP,CALAP
4,4'-DDE	DoD-ELAP,WADOE,NELAP
4,4'-DDE	DoD-ELAP,WADOE,CALAP
4,4'-DDE [2C]	DoD-ELAP,WADOE,NELAP,CALAP
4,4'-DDE [2C]	DoD-ELAP,WADOE,CALAP
4,4'-DDE [2C]	DoD-ELAP,NELAP,CALAP
4,4'-DDE [2C]	DoD-ELAP,WADOE,NELAP
Dieldrin	DoD-ELAP,WADOE,NELAP
Dieldrin	DoD-ELAP,WADOE,CALAP
Dieldrin	DoD-ELAP,NELAP,CALAP
Dieldrin	DoD-ELAP,WADOE,NELAP,CALAP
Dieldrin [2C]	DoD-ELAP,NELAP,CALAP
Dieldrin [2C]	DoD-ELAP,WADOE,CALAP
Dieldrin [2C]	DoD-ELAP,WADOE,NELAP
Dieldrin [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Endrin	DoD-ELAP,WADOE,NELAP
Endrin	DoD-ELAP,WADOE,CALAP
Endrin	DoD-ELAP,NELAP,CALAP
Endrin	DoD-ELAP,WADOE,NELAP,CALAP
Endrin [2C]	DoD-ELAP,WADOE,NELAP
Endrin [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Endrin [2C]	DoD-ELAP,NELAP,CALAP
Endrin [2C]	DoD-ELAP,WADOE,CALAP
Endosulfan II	DoD-ELAP,WADOE,NELAP,CALAP
Endosulfan II	DoD-ELAP,WADOE,CALAP
Endosulfan II	DoD-ELAP,NELAP,CALAP
Endosulfan II	DoD-ELAP,WADOE,NELAP
Endosulfan II [2C]	DoD-ELAP,WADOE,NELAP
Endosulfan II [2C]	DoD-ELAP,WADOE,CALAP
Endosulfan II [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan II [2C]	DoD-ELAP,WADOE,NELAP,CALAP
4,4'-DDD	DoD-ELAP,WADOE,NELAP

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

4,4'-DDD	DoD-ELAP,WADOE,CALAP
4,4'-DDD	DoD-ELAP,WADOE,NELAP,CALAP
4,4'-DDD	DoD-ELAP,NELAP,CALAP
4,4'-DDD [2C]	DoD-ELAP,WADOE,NELAP
4,4'-DDD [2C]	DoD-ELAP,WADOE,CALAP
4,4'-DDD [2C]	DoD-ELAP,NELAP,CALAP
4,4'-DDD [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Endrin Aldehyde	DoD-ELAP,WADOE,NELAP
Endrin Aldehyde	DoD-ELAP,WADOE,NELAP,CALAP
Endrin Aldehyde	DoD-ELAP,NELAP,CALAP
Endrin Aldehyde	DoD-ELAP,WADOE,CALAP
Endrin Aldehyde [2C]	DoD-ELAP,NELAP,CALAP
Endrin Aldehyde [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Endrin Aldehyde [2C]	DoD-ELAP,WADOE,NELAP
Endrin Aldehyde [2C]	DoD-ELAP,WADOE,CALAP
4,4'-DDT	DoD-ELAP,WADOE,NELAP,CALAP
4,4'-DDT	DoD-ELAP,NELAP,CALAP
4,4'-DDT	DoD-ELAP,WADOE,CALAP
4,4'-DDT	DoD-ELAP,WADOE,NELAP
4,4'-DDT [2C]	DoD-ELAP,WADOE,CALAP
4,4'-DDT [2C]	DoD-ELAP,WADOE,NELAP
4,4'-DDT [2C]	DoD-ELAP,WADOE,NELAP,CALAP
4,4'-DDT [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan Sulfate	DoD-ELAP,NELAP,CALAP
Endosulfan Sulfate	DoD-ELAP,WADOE,CALAP
Endosulfan Sulfate	DoD-ELAP,WADOE,NELAP
Endosulfan Sulfate	DoD-ELAP,WADOE,NELAP,CALAP
Endosulfan Sulfate [2C]	DoD-ELAP,WADOE,NELAP
Endosulfan Sulfate [2C]	DoD-ELAP,WADOE,CALAP
Endosulfan Sulfate [2C]	DoD-ELAP,NELAP,CALAP
Endosulfan Sulfate [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Endrin Ketone	DoD-ELAP,WADOE,NELAP
Endrin Ketone	DoD-ELAP,NELAP,CALAP
Endrin Ketone	DoD-ELAP,WADOE,CALAP
Endrin Ketone	DoD-ELAP,WADOE,NELAP,CALAP
Endrin Ketone [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Endrin Ketone [2C]	DoD-ELAP,NELAP,CALAP
Endrin Ketone [2C]	DoD-ELAP,WADOE,NELAP
Endrin Ketone [2C]	DoD-ELAP,WADOE,CALAP

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Methoxychlor	DoD-ELAP,WADOE,NELAP
Methoxychlor	DoD-ELAP,WADOE,NELAP,CALAP
Methoxychlor	DoD-ELAP,NELAP,CALAP
Methoxychlor	DoD-ELAP,WADOE,CALAP
Methoxychlor [2C]	DoD-ELAP,WADOE,NELAP
Methoxychlor [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Methoxychlor [2C]	DoD-ELAP,WADOE,CALAP
Methoxychlor [2C]	DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene	DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene	DoD-ELAP,WADOE,NELAP,CALAP
Hexachlorobutadiene	DoD-ELAP,WADOE,NELAP
Hexachlorobutadiene	DoD-ELAP,WADOE,CALAP
Hexachlorobutadiene [2C]	DoD-ELAP,NELAP,CALAP
Hexachlorobutadiene [2C]	DoD-ELAP,WADOE,NELAP
Hexachlorobutadiene [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Hexachlorobutadiene [2C]	DoD-ELAP,WADOE,CALAP
Hexachlorobenzene	DoD-ELAP,WADOE,NELAP,CALAP
Hexachlorobenzene	DoD-ELAP,NELAP,CALAP
Hexachlorobenzene	DoD-ELAP,WADOE,CALAP
Hexachlorobenzene	DoD-ELAP,WADOE,NELAP
Hexachlorobenzene [2C]	DoD-ELAP,WADOE,NELAP
Hexachlorobenzene [2C]	DoD-ELAP,WADOE,NELAP,CALAP
Hexachlorobenzene [2C]	DoD-ELAP,NELAP,CALAP
Hexachlorobenzene [2C]	DoD-ELAP,WADOE,CALAP
2,4'-DDE	DoD-ELAP
2,4'-DDE	DoD-ELAP
2,4'-DDE	DoD-ELAP
2,4'-DDE	DoD-ELAP
2,4'-DDE [2C]	DoD-ELAP
2,4'-DDE [2C]	DoD-ELAP
2,4'-DDE [2C]	DoD-ELAP
2,4'-DDE [2C]	DoD-ELAP
2,4'-DDD	DoD-ELAP
2,4'-DDD	DoD-ELAP
2,4'-DDD	DoD-ELAP
2,4'-DDD	DoD-ELAP
2,4'-DDD [2C]	DoD-ELAP
2,4'-DDD [2C]	DoD-ELAP
2,4'-DDD [2C]	DoD-ELAP

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

2,4'-DDD [2C]	DoD-ELAP
2,4'-DDT	DoD-ELAP
2,4'-DDT	DoD-ELAP
2,4'-DDT	DoD-ELAP
2,4'-DDT	DoD-ELAP
2,4'-DDT [2C]	DoD-ELAP
2,4'-DDT [2C]	DoD-ELAP
2,4'-DDT [2C]	DoD-ELAP
2,4'-DDT [2C]	DoD-ELAP
Oxychlordane	DoD-ELAP
Oxychlordane	DoD-ELAP
Oxychlordane	DoD-ELAP
Oxychlordane	DoD-ELAP
Oxychlordane [2C]	DoD-ELAP
Oxychlordane [2C]	DoD-ELAP
Oxychlordane [2C]	DoD-ELAP
Oxychlordane [2C]	DoD-ELAP
cis-Nonachlor	DoD-ELAP
cis-Nonachlor	DoD-ELAP
cis-Nonachlor	DoD-ELAP
cis-Nonachlor	DoD-ELAP
cis-Nonachlor [2C]	DoD-ELAP
cis-Nonachlor [2C]	DoD-ELAP
cis-Nonachlor [2C]	DoD-ELAP
cis-Nonachlor [2C]	DoD-ELAP
trans-Nonachlor	DoD-ELAP
trans-Nonachlor	DoD-ELAP
trans-Nonachlor	DoD-ELAP
trans-Nonachlor	DoD-ELAP
trans-Nonachlor [2C]	DoD-ELAP
trans-Nonachlor [2C]	DoD-ELAP
trans-Nonachlor [2C]	DoD-ELAP
trans-Nonachlor [2C]	DoD-ELAP
Mirex	DoD-ELAP
Mirex	DoD-ELAP
Mirex	DoD-ELAP
Mirex	DoD-ELAP
Mirex [2C]	DoD-ELAP
Mirex [2C]	DoD-ELAP

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Mirex [2C]	DoD-ELAP
Mirex [2C]	DoD-ELAP
Toxaphene	DoD-ELAP
Toxaphene	DoD-ELAP
Toxaphene	DoD-ELAP
Toxaphene	DoD-ELAP
Toxaphene [2C]	DoD-ELAP
Toxaphene [2C]	DoD-ELAP
Toxaphene [2C]	DoD-ELAP
Toxaphene [2C]	DoD-ELAP
Chlordane, technical	DoD-ELAP
Chlordane, technical	DoD-ELAP
Chlordane, technical	DoD-ELAP
Chlordane, technical	DoD-ELAP
Chlordane, technical [2C]	DoD-ELAP
Chlordane, technical [2C]	DoD-ELAP
Chlordane, technical [2C]	DoD-ELAP
Chlordane, technical [2C]	DoD-ELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	01/31/2021
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021

Analytical Report

Landau Associates, Inc. - Tacoma	Project: Webster Nursery	
2107 South C Street	Project Number: Webster Nursery	**Reported:**
Tacoma WA, 98402	Project Manager: Sierra Mott	09-Sep-2020 11:09

Notes and Definitions

*	Flagged value is not within established control limits.
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.